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ABSTRACT

This document is a compilation of 20 English-language abstracts concerning various aspects of education in Switzerland, New Zealand, Chile, Poland, Argentina, Pakistan, Malaysia, Thailand, and France. The abstracts are informative in nature, each being approximately 1,500 words in length. They are based on documents submitted by each of the nations to the International Bureau of Education as representative of their best and most substantial work in the field of education. The titles and institutions appear in both translation and transliteration for documents not written in English. (For related documents, see ED 060 227 and ED 062 583.)

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Classification (for the use of receiver)	Country Switzerland	CEAS No. 103
	No. 1	Date of issue March 1972

Author	Gretler A.; et al.
Title	*La Suisse au devant de l'éducation permanente*
Bibliographical data	Lausanne, Payot, 1971. (Greti "Information" series.)
Translation	The problem of life-long education in Switzerland
Keywords	Switzerland educational reform continuing education educational objectives training objectives equal education preschool education compulsory education

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This study was prepared under the auspices of a private association GRETI (Groupe romand pour l'étude des techniques d'instruction) as a follow-up to a seminar it organized and attended by educators at all levels, together with representatives of commerce and industry. The topic discussed at the seminar was 'the future and training' and the main conclusions emerging from the debates was that the training of men and women in the latter part of the twentieth century should be thought out afresh in its entirety, as a process continuing over the whole length of human life. The study constitutes, in a way, a report on the problem of life-long education in Switzerland.

Taking as its basis the conclusions of a number of sociological studies bearing on population and economic trends, the report begins by a brief forecast of changes likely to affect certain aspects of Swiss society in the fairly near future. Attention is then drawn to the interdependence of social development and education and—in the light of the foreseeable changes in society and in values—various requirements are set forth that should be met by education: greater flexibility in the system of education and training, to take account of qualitative needs in respect of man-power; having regard to the rapid changes taking place in technology, a multivalent basic training that will allow of constant adaptation and the assimilation of new types of

knowledge; an education system based on democratic and participative methods; general training for parents; life-long education designed to give content and meaning to an extended old age; twofold need for pre-primary education as making for equality of opportunity at the start and for the optimal development of the child and as meeting a need arising in the case of working mothers; need for the education system to help towards bringing into being the new virtual freedom enjoyed by individuals—by offering them choices which will enable the whole range of their natural abilities to develop; adaptation of the education system to the interpenetration of periods of training, active life and retirement; need for education through its methods and content, to prepare people for the use of leisure time; an education system that is not limited from the geographical point of view; need for a general improvement in the average standard of education among workers, particularly as regards a knowledge of economic and social matters so as to effect participation and ensure the operation of democracy; elimination of the discrimination between boys and girls which still obtains in a large number of school curricula; harmonization of the education systems of the various cantons; need to meet the growing social demand for education in the light of the increasing per capita income and the changing rôle of children in the family setting; need to find ways of meeting the legitimate social demand for education while avoiding the danger of over-qualification; need to meet the growing demand for courses for women re-entering employment.

The programmes of the various political parties in Switzerland refer more or less explicitly to certain aims of education and define the position of those parties with regard to the education system. An analysis of the publications of nine political groups reveals certain governing ideas: freedom must be guaranteed to everyone to live his life as a citizen and to develop his individual inclinations and talents; the same opportunities must be available to all, so as to ensure a training in keeping with individual abilities; the development of creativity and imagination must be a factor in the self-fulfilment of the individual; the development of a critical spirit must be encouraged as early as possible, so as to enable people to think, judge and discuss; the social integration of young people at school and in the world of adults should lead to better mutual understanding and, to this end, the rudiments of social behaviour should be inculcated in children before compulsory schooling begins, as early as the kindergarten; preparation for the future should provide everyone with the qualifications required for maintaining the

competitiveness of our economy; increased efforts on behalf of post-school education, and the provision of educational and cultural centres for the public should be encouraged; civic education for the public must be developed; the role of the family as the foundation of the community, must be supported for the sake of the harmonious development of young people and their preparation for life.

The World Council of Churches, the Roman Catholic Church and the Swiss Protestant working community for adult education, all of them concerned essentially with the development of man as a member of society, regard training as a means of laying the foundations for a better balanced society. Within a system that is perpetually evolving, everything possible must be done to enable the individual person to lead a life of self-criticism and, by understanding the world he inhabits, to manage it better. Integrated and responsible, ready to communicate, to transmit culture from one generation to another, in a constant mood of re-examination, man will then be able to take part in the development of mankind.

The present system of training and education in Switzerland is briefly described and criticized in the light of the requirements which have just been shown as existing: the system takes in children whose chances of success are too unequal from the beginning; it is premature in making selections that are too once-and-for-all, and as a result it tends to reproduce social inequalities. The present system makes scant allowance for individualization in teaching and gives rise to a high proportion of failures. It provides a good general education for those intending to go on to higher studies, but remains somewhat unsatisfactory for those in the lower ranks. In short, while there are too many different types of school, the present system does not offer the pupils a wide enough range of real choices.

Adult education is characterized at present by a dissipation of efforts and activities; it often results from measures taken by the private sector and is thus separate from the official education system—a fact which gives it an accessory character in relation to the latter. Adult education today is very unevenly developed geographically, and there is as much overlapping in it as omission. It takes no account of the principle of recurrence, it is often costly and calls for considerable sacrifice on the part of those who endeavour to benefit from it.

With the aim of proposing a more systematic and scientific approach to the problem of the determination of the objectives of education, the report describes briefly the help that may be afforded by taxonomy (Bloom and Kratwohl) as a means of enabling teachers and pupils to understand more clearly the stage they have reached and the direction they are taking.

Those structures of the system of education and training that are desirable in the long run are found to be based on all the preliminary approaches described above. They should, for example, be in conformity with some simple but fundamental principles: the entire system of education and training is regarded as forming a whole, of which adult education is naturally a component; the only essential subdivisions of the system are pre-primary education, compulsory schooling, post-compulsory education; the last named must be organized in its entirety as life-long education, one of the basic features of which is recurrence.

Recent psychological and pedagogical research has shown the paramount importance of the *pre-primary phase* in the general development of children, and the need for pre-primary education for all children from the age of three is beginning to be recognized. It should stimulate the development of all children and would be a particularly compensating factor in the case of children from underprivileged families. Its curriculum should meet the following requirements in particular: offer numerous opportunities for learning to live in society; take account of the individual differences between children and of their particular needs; beginning with the child's immediate environment, gradually expand his range of interest; leave sufficient time to the children to enable them to express themselves freely and in a variety of ways; give the children opportunities for self-expression through bodily movements and allow them sufficient rest; lay the foundations for learning in the future and pay particular attention to possible disturbances in the faculty of assimilation; take account of the interests and needs of parents, advise them and enable them to participate in pre-primary education.

Compulsory schooling will be organized along the lines of overall education in so far as the latter offers equal opportunities to all children; with its optional subjects and multi-level classes it facilitates the optimal development of each child in accordance with his own inclinations, aptitudes and tempo; it eliminates the traditionally decisive choice between the various types of secondary or upper primary schools during

the period of compulsory schooling; it replaces negative selection by positive differentiation, the pupils no longer being judged on the basis of an average obtained in an annual curriculum that is universally prescribed.

The general aims of schooling of this kind will be to offer a basic general and all-round education, to prepare pupils for their entry into active life, to motivate and prepare life-long and recurrent education. This period of schooling will last from 9 to 12 years.

With regard to *post-compulsory education*, if it succeeds in giving effect to the principle of unity, this means that when pupils come to the end of their compulsory schooling, they will not be faced with a number of types of schools and curricula, but an over-all offer of well organized and freely accessible education. The principle of education based on units (credits, *Baukastensystem*), in so far as this notion is clarified and becomes operational, will then be the key to the structurization of life-long and recurrent education. As for the actual instruction it may be imagined as comprising two aspects that are complementary and not completely unconnected, the object of the first being the transmission of knowledge mainly through strictly programmed technical media, and that of the second being the creative application of knowledge, essentially through active teaching methods involving participation.

Guided choice and information will naturally be essential elements in the structure of this system of education and training.

The study concludes by briefly proposing a number of measures for implementing the training system described above. First, measures which might be taken in the immediate future both at the Confederation and Cantonal levels. (a) At Confederation level: examination of the advisability of inserting an additional Article in the Federal Constitution conferring on the central authorities powers in respect of life-long education; establishment of a National Council for Education; establishment of a National Institute of Life-long Education; formation of a Pilot National Committee for a selected branch of instruction(to determine the units of teaching in that branch); institutionalization of forecasts of demand and supply in the labour market. (b) At Canton level: elimination of discrimination between boys and girls in the curricula of the compulsory schooling phase; gradual introduction of all-round education

in the compulsory schooling phase, promulgation of cantonal laws governing the scope of pre-primary education; integration of educational guidance, whether vocational or academic in character, in a single service.

Secondly, measures which might be taken in the transitional period: establishment of national committees for all branches of instruction; creation of a television channel reserved for education; revision of the objectives of the *maturité* (school leaving certificate); formulation of legal provisions guaranteeing to everyone the right to life-long education and regulating the financing of that education; institution of individual education booklets recording all the education and training received by the holders.

Abstract prepared by the Centre Suisse de Documentation en Matière d'Enseignement et d'Education, Geneva.

Classification (for the use of receiver)	Country Switzerland No. 2	CEAS No. 104 Date of issue March 1972

Author	Conseil fédéral
Title Bibliographical data	*Message du Conseil fédéral à l'Assemblée fédérale concernant la revision de la loi fédérale sur l'aide aux universités.* Berne, 19 mai 1971. 29 p.
Translation	Message from the Federal Council to the Federal Assembly concerning the revision of the Federal Law on grants-in-aid to universities
Keywords	Switzerland educational legislation grants higher education educational financing government aid to education

United Nations Educational, Scientific and Cultural Organization
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Following the economic, social and scientific upheaval that has resulted from the Second World War, the Swiss universities, like those everywhere else, have been faced with unprecedented difficulties. The increase in the number of students together with the rapid changes in the methods of research and teaching, have given rise in our cantonal universities to serious problems of financing. In 1964, a Federal committee of experts set up to examine the question of grants-in-aid to universities submitted its report, according to which there was an urgent need for considerable financial aid for the purposes both of current expenditure and of investment. In 1967, the Government (the Federal Council) sent a message in that sense to the Chambers, and on 28 June 1968 the Federal Assembly adopted the text of the Federal law on grants-in-aid to universities. After two years' experience of the application of this law, the Government considers that it should be reviewed with the aim of adapting it more closely to the existing situation. This is the purpose of the message summarized below.

Recent changes in Swiss institutions at university level

Over the last three years (1966/67-1969/70) the total number of students attending the cantonal institutions at university level has increased by over 18%, the number of foreign students increasing by 5.46% and that of women students by nearly 30%. Special mention should

be made of the steep rise in the number of medical students during this period (30.5%). The teaching staff in the *hautes écoles* has increased by about 44%.

The pattern of cantonal university expenditure has altered appreciably. The proportion of the operating costs (current expenditure) in relation to the total expenditure has risen from 81.5% in 1966 to 86.1% in 1969. The proportion is however, much lower in the polytechnical institutes.

The attempts so far made to reform the structures of the *hautes écoles* have been very far-reaching; they bear, for example, on the organization of the university authorities and the division of responsibility for financial administration between the community to which the establishment belongs and the university itself. They also affect the internal structure of the university, the integration of the university subdivisions or sections, the methods of participation in the shaping of opinion and the taking of decisions (the idea of university democratization and self-management). This experimental phase should make it possible to collect the necessary information before embarking on final action.

In regard to legislation, reforms have hitherto shown two tendencies. In Fribourg, Geneva and Neuchâtel, there has been a partial revision of the new provisions being partly limited in time. In Zurich, Berne, Vaud and St. Gall it has been left to the executive authorities to take certain interim legal measures. On the other hand, in the city of Basel, as the project for a total revision of the law concerning the university is in a very advanced state, it has been decided to set up a committee with broad terms of reference rather than to adopt temporary provisions, as has been done elsewhere.

All the measures taken in the light of current trends create conditions that are essential to the co-ordination of the universities and their integration in the 'Swiss university system'.

Experience gained in the application of the law on grants-in-aid to universities

For the two years during which the law was being applied, a sum of 130 million Swiss francs was allocated in respect of basic subsidies (operating costs) and about 95 million for investment.

The Confederation's contribution to the operating costs of the universities proved, however, to be insufficient. The arrangements for the calculation of subsidies seem to be highly complicated. Moreover, while this procedure does not oblige the beneficiaries to assign the Federal aid to strictly defined purposes (safeguarding of the autonomy of the cantons), it has the disadvantage of excluding any influence on the part of the Confederation with regard to university policy.

Although the law provided for a variable rate of grants for investment (40%, 50%, 60%), depending on the financial capacity of the cantons, the system does not seem necessarily to encourage the development of establishments and facilities in accordance with the needs and objectives of a national university policy. The chief reason for this is that the costs still to be borne by the cantons in which there is a university continue to be high, and that any major investment involves an increase in current expenditure.

The Federal law on grants-in-aid to universities provided for the case of new *hautes écoles* and for that of specialized institutions at university level carrying out certain tasks of special scientific training; in the case of the latter, however, it was found necessary to act with great prudence so as to remain within the spirit of the law, which aims at encouraging primarily teaching in the *hautes écoles* and then university research because it is in the nature of these specialized institutions to concern themselves chiefly with research and to engage in teaching only in a secondary way.

The division of the tasks imposed by the university grants system between two advisory bodies of equal rank, has proved satisfactory, more particularly because the Swiss University Conference and the Swiss Science Council, by reason of the dissimilarity of their functions and composition, have differing points of view. The Swiss Science Council formulates its recommendations and principles relating to university policy in the light of the requirements of science policy, while the Swiss University Conference, as the principal organ for university policy, is concerned with bringing about agreement between the universities. There is, however, a gap in the system outlined above: the operational bases, founded on scientific and inter-disciplinary methods and providing the instruments needed for the future university policy, are still lacking. The Federal Council considers that it is inadvisable to set up a new body to be responsible for these tasks, but that they should be carried out by existing institutions.

The improvement of inter-university co-ordination and co-operation is an important objective of aid to universities. Although some measures have been taken at inter-cantonal and inter-university level, the Federal Council is nevertheless of the opinion that this voluntary horizontal co-ordination will not suffice in the long run, and that, while cantonal autonomy in respect of education should be preserved, attention should also be paid to the national interests.

In conclusion, the Federal Council proposes a partial revision of the law on grants-in-aid to universities with the following aims:

Readjustment of the principles governing the allocation of subsidies and, in particular, restoration of the balance between subsidies for operational purposes (hitherto inadequate) and those for investment (excessive),

Avoidance of any danger of *numerus clausus* or other measures restricting admission to the universities. While difficulties of this kind have arisen, particularly in the faculties of medicine, the Government is anxious to affirm its opposition to any measure that runs counter to the free choice of a profession and that thereby calls in question the principle of equal educational opportunities.

Further encouragement to university co-ordination and planning. The change in the law should result in the Confederation's ensuring co-ordination between the various planning measures of the Swiss universities, in collaboration with the cantons and the institutions entitled to receive subsidies. In addition, the Confederation makes certain that the cantons are given advice on educational planning and school building.

This partial revision of the Federal law on grants-in-aid to universities is without prejudice to a possible total recasting of the law. Preliminary steps in this direction have, moreover, been taken.

Abstract prepared by the Centre Suisse de Documentation en Matière d'Enseignment et d'Education, Geneva.

Classification (for the use of receiver)	Country Switzerland No. 3	CEAS No. 105 Date of issue March 1972

Author	Commission pour la coordination intercantonale des systèmes scolaires. Sous-commission pour la statistique scolaire
Title	*Introduction d'un système unifié de statistique scolaire suisse*
Bibliographical data	Geneva, October 1970. 113 p., annexes /Bilingual edition, German and French/
Translation	Introduction of a unified system of Swiss educational statistics
Keywords	Switzerland educational statistics educational co-ordination

United Nations Educational, Scientific and Cultural Organization
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Co-operative Educational Abstracting Service (CEAS)

With 25 different and institutionally independent education systems operating on its territory, Switzerland has been increasingly desirous, since the sixties, of achieving some degree of co-ordination between these varied elements, while at the same time preserving as far as possible the autonomy of the cantons which make up the Confederation. Under the compulsion of circumstances, varying greatly, in regard to their size, their surroundings and their stage of development, the cantons have fashioned highly differing machinery for enabling them to define an educational policy. The statistical machinery of the cantons, for instance, shows a wide variety of development ranging from almost nothing to a sophisticated system for the storage and processing of individual data. The need for educational co-ordination demands that consideration be given to the question of establishing a unified system of educational statistics. A committee set up to study the question has submitted its report and it is for the authorities to amend it and to take the necessary measures for implementing its recommendations.

In establishing statistical data for the cantonal education systems on a unified methodological basis applicable to the whole of Switzerland, the primary intention is obviously to provide the competent bodies with reliable statistical information. But statistics are no longer designed solely to serve as illustrations

justifying administrative reports. They must also be fitted to serve the cantonal governments, the inter-cantonal co-ordinating committees and the appropriate federal authorities as instruments for decision-making. In addition, as education is tending to become an area of scientific research in its own right and a number of university institutes are interesting themselves in the scientific study of problems and constraints in the education systems, it is desirable to collect information regularly, with due regard to the problems for which the cantonal governments, inter-cantonal bodies and other circles concerned in varying degrees with the Swiss education system are seeking a solution.

The committee proposes to limit the collection, in the first place, to data on teachers, pupils and apprentices, leaving aside for the time being statistics relating to costs, expenditures, premises and equipment.

The project submitted provides for a census of all forms of education and vocational training, with the exception of higher education, statistics concerning which are the responsibility of the Swiss Science Council. All public and private schools offering a general education or vocational training are to be integrated in these statistics. The general public schools will be dealt with through the cantonal departments of public education. The vocational schools (including continuation courses for apprentices) come under federal regulations and can be approached through the Office Fédéral de l'Industrie des Arts et du Travail (OFIAMT). As regards private schools, there are some legal, financial and organizational problems remaining to be cleared up before they can be fully included in Swiss educational statistics.

The undernoted variables have been adopted:

For teachers: Name, first names; AVS (social security) number; date of birth; sex; civil status; nationality; commune of domicile; commune to which the school is attached; type of school and section; general school education; teacher training; type of engagement and grade; number of lessons given per branch of education; principal profession (if teaching is an accessory profession); principal profession exercised before entering the teaching profession (where applicable).

For pupils: Name, first names; date of birth; sex; nationality; religion; mother tongue; type of school or apprenticeship, section and school grade; commune to which the school attended is

attached; domicile of parents (or guardian); profession of guardian; repetition of a school grade; promotion from one year to another.

The sub-committee proposes that the statistics should be obtained by means of an individual questionnaire—for technical reasons (single system for all the cantons, electronic processing and an annual return), and because of the wealth of information involved (socio-cultural and educational variables). The most complex problem consists in representing the 25 cantonal education systems, each with its own terminology, while at the same time guaranteeing that, at the time of the general summing up, the similar elements will be grouped despite these terminological differences. Accordingly, a general terminology has been defined for Swiss educational statistics, which will enable account to be taken of the situation existing in every canton.

The preparation of the questionnaires gives rise to certain problems. Obviously, they cannot be filled in without difficulty unless they use the cantonal educational terminology that is familiar to teachers and pupils. It is hoped, however, that the codification of the answers can be effected mechanically (optical scanning), which assumes that the questionnaires are drawn up in a form that is identical for all cantons. The method proposed is to provide the questionnaires with a uniform basic structure, but to docket the boxes in the terminology of the respective cantons. When the answers are codified, care will be taken to ensure re-access to the data in tabulations reflecting the cantonal terminology as well as in tables drawn up in the Swiss terminology.

Educational statistics should be taken annually, but the variables most difficult to appreciate could be omitted every other year.

It is proposed that all problems relating to the preparation, compilation and publication of Swiss educational statistics should be entrusted to one central body. It is proposed that responsibility for the technical aspects of this work (printing of questionnaires, codification, storage on a magnetic base, tabulation) be vested in the Federal Office of Statistics, which has the necessary staff, experience and equipment.

The cantons could have at their disposal the material assembled in their schools, for the purposes of use and internal analysis. Information concerning pupils and teachers will

consequently be stored in the cantonal terminology as well as in the federal code.

Attached to the report are: a code defining the socio-professional categories, sample questionnaires for teachers and pupils, sample census cards for the class, a provisional tabulation.

Abstract prepared by the Centre suisse de documentation en matière d'enseignement et d'education, Geneva.

Classification (for the use of receiver)	Country Switzerland	CEAS No. 106
	No. 4	Date of issue March 1972

Author	Conseil fédéral
Title	*Rapport du Conseil fédéral à l'Assemblée fédérale sur l'initiative populaire pour la coordination scolaire*
Bibliographical data	Berne, 27 September 1971. 33 p.
Translation	Report from the Federal Council to the Federal Assembly concerning a public petition on behalf of educational co-ordination.
Keywords	Switzerland educational legislation educational reform government role educational co-ordination

United Nations Educational, Scientific and Cultural Organization
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Co-operative Educational Abstracting Service (CEAS)

On 1 October 1969, a petition was submitted, signed by 87,000 members of the public and calling for a revision of the Federal Constitution, in the following sense: (a) the age of school enrolment, the beginning of the school year, and the duration of compulsory schooling, to be made uniform throughout Switzerland; (b) the Confederation to encourage educational research and support cantonal action on behalf of educational co-ordination; (c) the Confederation, in collaboration with the cantons, to do everything in its power to synchronize the curricula and syllabuses at all grades up to the maturité certificate, the promotion from one grade to another, and teaching methods and teacher training, so as to enable pupils to transfer without difficulties from one school to another. The federal executive authority (the Federal Council) having requested, and obtained, from the legislative authority (the Federal Assembly), an extension of the time limit for expressing its opinion on the aforesaid public petition, finally presented its report in September 1971.

The declared intention of the movers of the petition is 'to enable all Swiss citizens—having regard in particular to the different linguistic regions—to receive an education consonant with modern requirements'. It is obvious that the same desire inspires the efforts made at cantonal and federal level in the matter of

educational policy, which, are not confined to Swiss citizens but are extended to all inhabitants of the country. Starting from the idea that the existing constitutional powers of the Confederation do not suffice for the attainment of these objectives, the movers of the petition consider it necessary that the articles in the Constitution concerned with education should be amended.

In fact, apart from vocational training, some specific matters such as the recognition of the *maturité* certificates and the teaching of gymnastics and sports, the Federal Constitution does not confer on the central authority any powers enabling it to exert an influence on cantonal educational laws, and in particular to take co-ordinative measures.

The petition calls for the establishment in the Constitution of uniform rules on the age of school enrolment, the beginning of the school year, and the duration of compulsory schooling. The need for a unification of the cantonal regulations in these matters is now generally admitted. There is still in practice a difference of nearly two years in the age of school enrolment as between the highly industrialized cantons and those which are predominantly rural. The period decided upon for the beginning of the school year differs from one canton to another; it is generally the autumn in French Switzerland and the spring in the German-speaking cantons. The school year varies from 34 to 42 weeks, and the duration of compulsory schooling from 7 to 9 years.

The Federal Council unreservedly approves the request contained in the petition for the encouragement of educational research and for federal support for cantonal action on behalf of educational co-ordination.

The petition also requests that the Confederation, in co-operation with the cantons, do everything in its power to put an end to the regional disparities that exist in the curricula and syllabuses at all grades, in respect of promotion from one grade to another, in teaching methods and in teacher training. The Federal Government recognizes all these differences, but it notes that the shortcomings which it is proposed to remedy are not the only ones. The cantonal education systems have not so far succeeded in abolishing other disparities making for inequality in educational opportunities: the pre-primary situation; establishment of cycles of observation and guidance; setting up of vocational training centres; considerable differences in the attendance at high schools and colleges.

This petition is not the first request that has been made for educational co-ordination. As early as 1962, various groups—teachers' associations in particular—asked that some such action be taken. At a more official level, the Swiss Conference of Heads of Cantonal Departments of Public Education appointed commissions to study these problems. In June 1971, for example, an inter-cantonal agreement on educational co-ordination came into force, enabling the cantonal education systems to be brought into harmony by stages. This inter-cantonal institution, governed by public law and having as its object the development of education and the harmonization of the legislation of the respective cantons, links the signatory cantons (numbering at present 17 out of 25) on a 'horizontal' basis, constituting what is known in Switzerland as co-operative federalism, by means of an Agreement between equal and independent partners without the intervention of a higher central authority ('vertical'). Regarded as more in accordance with Swizterland's political and socio-cultural structures, the text of this Agreement meets, in another way, most of the requirements contained in the public petition. It fixes the age of school enrolment at six on 30 June; the duration of compulsory schooling is determined at 9 years fcr all at the rate of at least 38 weeks per year, and the duration of schooling up to the *maturité* examination at 12 years minimum and 13 years maximum; the school year is to begin between mid-August and mid-October.

The Agreement also stipulates that the signatory cantons should draw up recommendations (which might later become compulsory provisions) applicable to all the cantons and covering the following: outline curricula; common educational equipment; unrestricted transfer between equivalent schools; promotion to the secondary cycle; recognition of school leaving certificates and diplomas obtained in equivalent types of education; uniform description of the same school grades and types of school; equivalent training of teachers. With regard to research, the Agreement provides for co-operation between the cantons and the Confederation in respect of educational planning, pedagogic research and educational statistics.

Finally, the Government finds that the petition goes somewhat too far in its requests concerning increased constitutional powers for the Confederation; moreover, it deals with only a few of the questions relating to educational policy with which the country is confronted at the present time. Consequently, the Federal Council recommends that the Federal Assembly propose to the soverign people the rejection of the public petition for educational co-ordination, on the understanding that

the essential aims of the petition, the pertinence of which is appreciated by the Government, are in process of fulfilment through the inter-cantonal Agreement on educational co-ordination and that, moreover, steps are being taken with a view to the revision of the articles in the Constitution concerned with education.

On this last point, the Government is reporting to Parliament on the outcome of the consultation undertaken on the basis of a preliminary draft submitted to the political parties, the cantons and various of the country's trade union, economic and cultural associations. From this consultation it appears that there is a definite desire for a revision of the Constitution. Although more intensive action by the Confederation in regard to education is generally welcomed, two differing trends are apparent: one would like to confer on the Confederation powers to legislate in all branches of education, the cantons being responsible for applying and supplementing such legislation, while the other considers that there should be a precise definition of the domains in which the cantons remain solely competent. As far as essentials are concerned, the preliminary draft supports this latter trend, in a desire to maintain the notion of cantonal competence in matters not expressly reserved for decision at federal level, which allows sovereignty to the cantons in the matter of education. The Government undertakes to proceed rapidly with the revision of the articles of the Constitution relating to teaching and education, so as to be able to submit a message to the Chambers before the citizens and the cantons have to express their opinion on the public petition.

Abstract prepared by the Centre suisse de documentation en matière d'enseignement et d'education, Geneva.

Classification (for the use of receiver)	Country New Zealand No. 1	CEAS No. 107 Date of issue March 1972

Author	National Advisory Committee on Maori Education
Title	*Maori education: Report of the National Advisory Committee on Maori Education*
Bibliographical data	Wellington, Department of Education, 1971. 19 p.
Translation	
Keywords	New Zealand Maori education cultural disadvantage educational development mother tongue preschool education curriculum teacher training educational personnel vocational education adult education

United Nations Educational, Scientific and Cultural Organization
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The National Advisory Committee on Maori Education is charged with the responsibility of advising the Minister of Education on matters relating to the education of Maori children. The Committee formed a working party and was asked to report to the Minister of Education on priorities in Maori education for the next few years.

Maori children should be equipped to realize their full potential, first of all within the school system and later as effective members of the community. It is assumed that to achieve the goal of equal opportunity it is often necessary to take measures that are vastly unequal.

It is essential that the Maori child's self-image be enhanced by his knowledge that cultural differences are understood, accepted, and respected by all with whom he associates. Positive steps should be taken within the education system to ensure a growing understanding of Maori life and culture, including the place given by Maoris themselves to the Maori language. It is also important that Pakehas (non-Maori New Zealanders) particularly children and teachers, be made more aware of the cultural values that form an essential part of the Maori way of life in a changing society. The growth rate of the Maori population, together with the migration from rural to urban areas, is bringing an increasing number of Pakehas into closer and more frequent association

with an increasing number and proportion of Maoris. This trend is strongly evident in schools and will continue for the next decade at least.

Major importance is attached to developments in preschool education and high priority should be given to this level. There is a need for flexibility in organization and administration in preschool education for Maori children, for special funds to be made available for the initial stages of establishing preschool groups, and for the provision of specialized equipment such as reading materials. The advisory service on preschool education should be strengthened so that local preschool groups can have available a ready source of expert professional guidance, and there should be continuing efforts, through courses of in-service training, to help preschool personnel, infant teachers, and field advisory staff understand the needs and background of Maori parents and children.

There is deep concern that so many Maori children lack confidence in themselves in school. It is clearly important that ways must be found of helping them to build up and maintain pride in themselves. It is essential to provide a basis of understanding and acceptance for their contemporaries to be made aware of the cultural values that form an essential part of a Maori child's way of life. One way of achieving this is to include the Maori language in the school curriculum and to teach Maori studies to all pupils. The lack of progress of Maori children in the learning of English is a major cause of concern. There is an urgent need to find ways of improving the situation and a thorough study of the teaching of English to Maori and Polynesian pupils throughout primary and secondary schools is urged.

Special staffing measures should be taken in schools with a large number of Maori pupils, including liberal teacher-pupil ratios, extra ancillary assistance and advisory services. Further improvements in staffing would allow greater flexibility in school organization and enable closer links to be established between home and school. These links need to be improved by an extension of the visiting teacher system, the appointment of school guidance counsellors and special Maori welfare officers to act as liaison between the schools, the homes and local Maori organizations. The aim of these special staffing measures must always be to improve the qualities of the educational programmes undertaken by Maori pupils.

The committee's recommendations are aimed at extending discussions on vocational guidance to the intermediate school level and at increasing parental knowledge on vocations through the co-operation of the school, local Maori organizations and vocational guidance officers. Provision of more regular and systematic information to pupils and parents about vocational opportunities should be provided through adult education television, and the news media. Trade training schemes should be extended to include girls, there should be provision of a wider range of skills to be taught, and such courses should be made available to Maoris from urban as well as from rural areas. There should also be continuation and extension of 'Live in a City' courses, seminars for senior Polynesian pupils, 'pre-employment' courses and an extension of vocational guidance services, guidance counsellors and career advisers.

Priority should be given to in-service courses of various types, courses in Maori studies in teachers' colleges and to the appointment of teachers' college staff in this field. It should be possible for teachers to obtain qualifications in Maori, universities and teacher training colleges should provide Maori language courses, and the recruitment of greater numbers of suitable Maori entrants to the teaching profession should be encouraged.

The committee has not been able to make a detailed study of the contribution to be made through the avenues of adult education to the field of Maori education. The National Council of Adult Education has, however, set up a working party to examine Maori adult education. The committee strongly recommends that University Extension Departments and the national voluntary organizations extend their facilities and programmes for Maori parents.

Abstract prepared by A. F. Smith, Department of Education, Wellington, for the New Zealand Council for Educational Research.

Classification (for the use of receiver)	Country Chile	CEAS No. 108
	No. 1	Date of issue March 1972

Author	Presidente de la Republica
Title	*Primer mensaje del Presidente Salvǎdor Allende ante el Congreso Pleno. Parte II: Educación.*
Bibliographical data	Santiago, Mayo de 1971. 15 p.
Translation	First Message of President Salvador Allende read befor Congress. Part II: Education.
Keywords	Chile educational policies educational planning educational goals democratization of education vocational training

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The Political Constitution of Chile prescribes that, a the opening of each year of the ordinary sessions of t National Congress, the President of the Republic shall report to Congress on the administrative and political state of the nation. The present document represents a Presidential Message of particular importance because i is the first to be delivered by a socialist government.

Educational policy. There are in Chile marked differenc in the social and economic situation of the various soci classes, with unfortunate consequences for the majority of the children and young people, who are deprived of t economic and cultural means that are essential to any real possibility of entering the school system and goir through its various stages. In these conditions, an ex- pansion of school enrolment is not enough, since it onl favours entry into the system while the rate of drop-ou continues as before due to straitened circumstances. Th There is also a marked difference in the extent to whic pupils benefit from from education, according to their social class. The existence of highly differentiated ar isolated educational systems—such as public and private schools, education based on science and the humanities or on technical and vocational training—contributes to- wards a stratification of enrolment that is reflected i social life and in work. The Government's educational and cultural action is conceived as an integral process of dealing with the problems of childhood and youth, and with the need for considering the values to a just

and free society. Accordingly, the Government's action will be directed towards the achievement of the following general objectives: (a) to democratize the educational system by making it possible for children and young people to be incorporated in it and to remain in it at all levels, without any exclusion for social and economic reasons and, since education is conceived as a life-long process, to open it to adults and workers; (b) to make education a decisive factor in the structural changes now taking place in the country; (c) to promote those values that make for a widespread social solidarity.

In the pursuit of these objectives, consideration is being given, *inter alia*, to the following: improvement in the policy concerning student welfare; curricula adapted to make up for the deficiencies of those who are less favoured socially or intellectually; the incorporation of teachers, parents, students, workers and representatives of trade and industry in the administration of education; an education which will train pupils for the discharge of various social duties; an organization of school life which will enable young people to play an active part in their own training. The necessary stages include the preparation of a medium-term National Plan for Educational Development with the participation of all sectors concerned with education, workers in education, students, parents, and other sectors of the national community.

The education budget for 1971 represents, in relation to the previous year, a real increase of 14%, apart from the general rise of 34.9% tried out to meet the increased cost of living. The university budget rose by 36.8% in real terms. The sum assigned in 1971 to national education amounts to 16% of the total national budget. Enrolment in ordinary education in 1971 is 6.2% over the figure for 1970, which means that 72.5% of the population between 5 and 19 years of age are now enrolled. Basic education in 1971 shows an increase of 4.7% over enrolment for 1970, which means that about 95% of the population between 6 and 14 years of age are now enrolled, a higher percentage than for 1970. In 1971, the number of pupils enrolled in secondary education will be approximately 360,800, of whom 223,100 studying science and the humanities and 137,700 taking technical and vocational studies. The State schools will absorb 175,126 and 106,428 pupils respectively, representing an increase of 20.1% in the first category and 37.1% in the second. The private sector will account for 22.9% of secondary enrolment, 34.7% of the population between 15 and 18 will thus be enrolled—a higher figure than that for 1970. At university

level, the intake for first year shows an increase of 37%, with an increase in total enrolment of 28%. From 1969 to 1970, the increase was only 8%.

The school building programme for the present year will show an increase of 210.45% over building in 1970. The 1971 programme of the School Aid and Scholarships Board shows a considerable increase over 1970 for school meals and equipment; 60,000 scholarships will be awarded to pupils in the seventh and eighth years of secondary education, representing an increase of 56.67% over the awards in 1970. The programme for educating workers for change has the following essential aims: to eliminate illiteracy, to train workers in new production techniques, to promote workers' participation, and to create conditions which will enable workers to have a real access to the education system. In higher education, the capacity of the universities to receive first-year students will be increased by 87% in relation to 1970; adding to this other places available for secondary school leavers, the total increase will be 118%. The total university enrolment will amount to approximately 97,000 students, and the total for higher education will be 107,000.

Long-term educational policy. Within the next five years, basic general education should cover 95% of the corresponding age groups. Consequently, it is necessary to increase the retention rate. Basic general education will be extended from eight to nine years and secondary education will last three years. Secondary education will be given in integrated or complete schools, which will comprise both science and the humanities, and technical and vocational training, thus facilitating transfer from one branch to the other. The technical education given in integrated secondary schools will be theoretical, the practical part being taught at the time when the work is being organized. All pupils leaving secondary integrated schools will have the same certificates of studies. They will then have one or two years' experience of actual work, in accordance with their expressed preferences. Some of them will go back to the ordinary education system after a year or two of practical training in work, and enter university, where they will spend three to four years studying for a profession. Once they have obtained the degree qualifying them for a professional activity at higher level, they will return to work.

To engage in postgraduate studies, it will be necessary to have some working experience subsequent to taking the professional degree. These studies will take place in the Research

Institutes. All young people leaving the ordinary education system—whether or not they have completed the relevant study cycle—will be given practical training in work; for this purpose, a national organization will be set up to be known as the programme of education through practical work.

For solving some specific problems, the following action is proposed: to extend and improve the school welfare services; to increase the internal efficiency of the educational system; to institutionalize and promote compulsory refresher courses for teachers; to ascertain by means of surveys that the specialized subjects taught in secondary and higher education are adapted to the needs of the labour market; to integrate literacy teaching and adult education in the programmes for life-long education; to try out new teaching techniques and new methods of educational organization, inspection and evaluation and of improving the curriculum.

Other proposals are concerned with the following. Literacy teaching: it is recommended that this be associated with labour centres, (all undertakings in which manual labour is employed), trade unions, the armed forces and housing estates. Creation of poles of cultural attraction: the need has been noted to encourage the development of other centres, besides Santiago and Valparaiso, where organizations may be set up for research, further training for teachers, inspection, educational publications, etc. Establishment of an institute for the preparation of audio-visual aids: there is an urgent need for such equipment, for use both in ordinary education and in mass communication. Evaluation, guidance and further training: it is realized that the connexion between education and work makes it essential to apply up-to-date methods of evaluation and guidance, and to give them priority. Out-of-school education: the connexion between education and work, between schools and industrial or commercial undertakings, trade unions and similar organizations is seen to be giving rise to a kind of social education that will have an increasingly decisive influence. To this end, it is important to encourage creativeness in educational and cultural research and experimentation. The national system of higher education: the proposals include enrolment quotas, determined by specialization, regions and universities, regional integration of independent university units, degree and postgraduate courses, increased efficiency in regard both to teaching and to research, planning of higher education.

Abstract prepared by Professor Irma Salas, Santiago

Classification (for the use of receiver)	Country Chile No. 2	CEAS No. 109 Date of issue March 1972

Author	Boeninger K., Edgardo
Title	*La investigatión en la universidad, su función e importancia*
Bibliographical data	Santiago, Mayo de 1971. 16 p.
Translation	University research, its function and importance
Keywords	Chile higher education educational research

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The universities undoubtedly form the backbone of the scientific and technological system in the countries of Latin America, and particularly in Chile, since a considerable proportion not only of scientists but also of equipment, accommodation and funds for research are concentrated in them. To enable the universities and other bodies engaged in research to carry out their task efficiently, certain prior conditions need to be fulfilled, for which the national education systems are responsible, at the primary and secondary levels as well as in higher education itself. Some of these prerequisites are outlined below.

At the primary and secondary levels: development of the scientific approach, entailing appropriate teaching methods from the earliest years of schooling; an intensive and diversified teaching of science and technology adapted to each educational level and based on curricula and teaching methods that are flexible and variable in order to keep pace with advancing knowledge; development of technical specialization at the secondary level so as to have supporting qualified personnel available for scientific and technological research; promotion of a new scale of social values, which give due importance to science and technology and thereby decreasing individual preferences for traditional liberal professions and for office work; recognition and encouragement of a scientific bent in pupils at the primary and

secondary levels.

At the level of higher education: ensuring that the scientific spirit is imbued in teachers being trained for all levels and the ability to hand it on to their pupils; fostering an esteem for and knowledge of research, e.g. through university extension courses in order to obtain the necessary social backing for research; expansion of postgraduate education for those intending to devote themselves to scientific and technological research; training specialists able to form professional nuclei to co-operate in research; establishing an efficient system of life-long education for graduates from higher education.

The greater part of fundamental research must be carried out in the universities, which should be responsible for deciding its content, diversity, direction and methodology. This will tend to stimulate the universities' own creativeness and to generate a machinery capable of deciding whether to import or adapt technological methods from abroad or to create techniques better suited to the country's possibilities and needs. For this purpose it is essential that the universities assist in establishing appropriate communication among scientists and technologists and between them and the rest of the community.

Fundamental research is essential for creating a scientific approach and tradition; for training people who will be called upon to apply advanced science and technology; for arriving at a proper understanding of scientific progress in the most advanced centres; transmitting such knowledge to those who have to apply it; for stimulating the activity of technologists in their efforts to solve the problems with which they are faced. The efficient transfer of technology to new situations and different conditions can only be effected if the receiving country has reached a stage of scientific development enabling it to accomplish the necessary adaptation.

The justification for technological research is based on a number of factors. Technology cannot be imported blindly, since it has to be adapted to the particular circumstances of the importing country. Even if, at some given moment, imported technology could be used without any adaptation, serious limitations will eventually occur due to the essentially dynamic nature of technological change. In some sectors, the research conducted in the industrialized countries is both inapplicable and prejudicial to national circumstances. The choice to be made between rival techniques, the negotiations of licences and patents, of agreements for technical assistance, call for

an analysis implying an exact knowledge of existing alternatives and of the problems involved in their application. A technology must be developed which will take account of the country's relative shortage of capital, of the large numbers and lesser qualifications of the labour force. This technology, however, must not be inferior, it must be competitive in regard to quality and production costs.

The priority areas for research are: those sciences needed in order to learn and practise other disciplines: mathematics; sciences and techniques of essentially national interest because they are related to local geographical conditions and problems (meteorology and agriculture) those which are valid for the Latin American countries for historical, cultural and socio-economic reasons (the social sciences in general, economics, political science, sociology and population problems); sciences and techniques needed to handle more complex technological processes in industry which will be of strategic importance in the future (solid-state physics, cybernetics, operations research, electronics and chemical engineering); sciences, techniques and subjects connected with the exploitation of resources or the production of goods of strategic importance to the nation (chemistry, and research on copper, timber, fisheries, and mining in general).

The determination of priorities is closely related to the notions of planning and co-ordination. In applied research and experimental development the research worker is at liberty to choose the project and the methodology to be employed, but the disciplines, programmes or subjects are determined by evaluating the nation's short-term or long-term needs. Universities must make a major effort to meet their social responsibility in regard to scientific and technological research, and in order to do this it is essential to change the traditional institutional structures based solely on an educational mission designed to produce professionals. It is also necessary to ensure that a substantial share of the university budget is devoted to research and that the required institutional and administrative conditions for research are established.

The Research Committee of the University of Chile should be responsible for: the assessment of development programmes proposed by any group of university members; the support for specific high-quality research projects included in already defined development programmes; the organization of seminars for further science training as a regular activity of the departments, with the participation of other sectors of the

university and of experts from within the country or overseas; training of members of the university who have not had suitable opportunities for acquiring higher qualifications and experience in research.

Inter-university co-operation, both national and regional, should be directed towards such activities as: the suitable distribution of work among a limited number of existing institutions; the systematic development of joint research programmes and projects in two or more countries, or of comparative or complementary research; drawing up of pluri-university or multi-national agreements for the use and development of costly equipment, together with co-operative programming for the purpose of benefitting from the services of visiting research workers and of enjoying the advantages of international collaboration; the development of national and regional systems of scientific and technological documentation and information; exchanges of personnel and information between groups of research workers engaged on the same subject or in the same discipline; organization of seminars or working groups to discuss subjects or areas of research, and to decide upon new priority tasks; postgraduate teaching organized on a co-operative basis with the aim of ensuring that it is sufficiently diversified and of the highest possible standards.

Abstract prepared by Professor Irma Salas, Santiago.

Classification (for the use of receiver)	Country Chile	CEAS No. 110
	No. 3	Date of issue March 1972

Author	Escoté, Josefina; Campos, Adriana
Title	*Padres y maestros: nuevas perspectivas para los centros de padres*
Bibliographical data	Santiago, Editorial Universitaria, 1971. 122 p. (Biblioteca latinoamericana de educación)
Translation	Parents and teachers: new perspectives for parents' associations
Keywords	Chile parents associations parent participation teacher participation parent responsibility primary education secondary education group techniques

The information contained in this publication was compiled from surveys and documents.

Parents and teachers realize that schools and the family have the same task to perform, and this awareness of a common cause has turned the parents associations into extremely important factors in the education, general training and welfare of children in elementary and secondary schools.

The parents associations in public elementary and secondary schools are governed by common statutes which state them to be 'bodies co-operating in the educational and welfare activities of the State educational establishments'. The task of the parents associations is to link the school with the pupil's home and secure the co-operation of the community; to help the cultural development of pupils, parents, and the public in general; to make parents more aware of the problems of childhood and adolescence and eager to secure the best possible education for their children; and to encourage the co-operation of parents and other citizens in resolving the pupils' health, socio-economic and educational problems.

Parents associations are organized at three levels: class (i.e. Grade) or sub-associations; the general parents association in each school; and the national

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ederation of parents associations. At the beginning of the school year, the teacher in charge of each class is responsible for organizing the sub-association for that class. The chairmen of the boards of these sub-associations together with the headmaster or headmistress and two teachers, who act in an advisory capacity, form the governing body of the school's general parents association.

The activities of the class and general parents associations centre on the improvement of the school premises, and equipment, the welfare of the pupils, the provision of better teaching material and of conditions which will make it easier for pupils and teachers to work in school, cultural extension and public relations. The work of the general associations is more ambitious and of on a larger material scale than that of the class ssociations.

The parents associations in public and private schools are grouped in national associations or federations which promote the organization of new associations and co-ordinate and direct their activities, encourage the study of national and local problems affecting education, and take the initiative in campaigning for higher standards in the press, the cinema and other forms of indirect education. The national associations are the official channel of communication between the parents of pupils in elementary and secondary schools and the Ministry of Education, the National Council of Education of the Superintendency of Education, and other public bodies.

At the present time both class and general parents associations are somewhat limited in their activity, which is restricted to economic co-operation. They lack technical guidance, the administrative conditions in which they operate are unfavourable and only a minority participates in their work. As a result of these criticisms, their rôle and tasks are now being redefined, with particular emphasis on the need for a better knowledge and understanding of the problems and interests of children and young people. It is also felt that they ought to adopt a somewhat more technical approach, especially to the planning of their activities. There will have to be closer relations between the general association and its various class associations; and administrative conditions and teachers' time-tables will have to be adjusted when necessary to enable the associations to function smoothly. Their advisers will have to be better trained and efforts will have to be made to expand them from parents into parent/teacher associations.

The life and work of a parents association are shaped and coloured by the meetings of its members, at which a grasp of group leadership techniques is essential. At these meetings parents are kept informed, group action is planned and common problems are studied. The success of such meetings depends mainly on how they are prepared, and on the proficiency of the leader and members of the group. The subjects discussed should help to familiarize parents with the problems of childhood and adolescence and encourage them to seek to improve the education of their children through appropriate intellectual, civic and social training activities. The discussions should include a subject connected with the child's general education or particular aspects of the learning process. Educational topics for discussion can be found in the daily experience of the leading teacher: interviews with parents, observation of pupils, reading of newspapers and reviews, and the themes suggested by the group guidance programmes of the headmaster. Some examples of topics are included, together with the relevant texts and points to be considered and discussed. The texts refer to motivation in school work; some problems in adolescent development; career problems; and youth in its relationship to adults, society and change. A general pattern is recommended for meetings, and suggestions are added for the two meetings held respectively prior to and on the occasion of the start of the school year.

It is suggested that the effectiveness of the work done by parents associations could be enhanced by the adoption of certain group techniques that appear better suited to the aims of their meetings, the problems and topics discussed at them and the characteristics and motivations of these groups than the methods currently employed. Depending on the purpose for which the meetings are held, the techniques selected are divided into those primarily designed to enable the group to obtain information from specialists in specific subjects and others appropriate for promoting the exchange of ideas and opinions on problems affecting the majority of parents. The various techniques are briefly described, with particular emphasis being laid on the discussion method of problem-solving.

Lastly, there is an account of an educational experiment carried out in a parents association, the object of which was to discuss and analyse a problem of human relationships existing between the girls in two classes of the college in question. In addition to describing the origin of the problem, the plan decided on, and the action taken, the authors provide a full account of the meeting of the parents association, a report

on the forum that was held, and a critical evaluation of the experiment.

Abstract prepared by Professor Irma Salas, Santiago.

Classification (for the use of receiver)	Country Chile No. 4	CEAS No. 111 Date of issue March 1972

Author	Magendzo, Abraham
Title	*Formulación de objectivos educacionales en términos operacionales*
Bibliographical data	Santiago, Ministerio de educación, Centro de prefeccionamiento, experimentacion e investigaciones pegagógicas, Sección curriculum, julio de 1971. 77 p.
Translation	Formulation of educational objectives in operational terms
Keywords	Chile educational goals taxonomy

Educational objectives form the basis of curriculum planning and of the teaching process. They give education its direction and purpose. They stimulate and motivate the work of the educator and provide criteria for evaluating the results of education. There are various types of objective : the general ones concerned with the ultimate aims of education, those laid down at curriculum level, and the specific forms or versions of the latter actually adopted by the teacher in the classroom. This publication offers guidance to teachers in formulating objectives at classroom level, giving them some criteria which will enable them to plan their teaching activity on the basis of objectives defined in operational terms.

Characteristics of operational objectives and general principles to be borne in mind. The objectives must express the changes which it is desired to effect in the pupils and not the work to be done by the teacher. A specific objective must include all the elements needed to establish ultimate behaviour precisely and unequivocally: a list of topics, concepts, themes or generalizations does not constitute an objective. Since the objectives are formulations designed to give direction to the educational process, they must be communicated to the pupils and must guide the selection of activities and facilitate evaluation. The objectives should fall into logically planned and coherent groups.

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One of the characteristics of a behavioural objective is that it precisely describes the pupil's ultimate behaviour. The content aspect and behaviour are closely linked, and a specific objective must establish clearly and precisely the content in relation to which the behavioural change expected will find expression. In order to give the proposed objectives greater clarity and precision, it is advisable to state the specific context or circumstances in which pupils will be able to demonstrate their attainment of them. In formulating an objective, it is desirable to specify, wherever necessary, the degree of success which pupils are expected to attain in performing whatever task is envisaged. This means establishing a certain standard as a criterion of pupil performance.

Procedure for, and stages in, formulating operational objectives. The first stage is to determine the objectives which it is desired the pupils should attain on completion of the teaching/learning process. The second stage is to organize and grade the objectives. This involves the structural analysis of a task, topic or curricular unit into the hierarchy of objectives of which it is composed. A unit of instruction may be structurally analysed by means of either Bloom's 'Taxonomy of educational objectives' or Gagné's 'Identification of eight different types of learning'. The taxonomy falls into three main sections: the Cognitive Domain, the Affective Domain and the Psychomotor Domain. The objectives in each domain are arranged in a hierarchy in such a way that those in one class include, and are based on, the previous ones. In addition to the degree of complexity of different behaviours, the taxonomy makes allowance in its hierarchy for the degree of awareness of the individual exhibiting them. Each domain is divided into categories and sub-categories of objectives.

The author points out that although Gagné fully acknowledges the usefulness of taxonomy for identifying and differentiating educational objectives, he is of the opinion that it fails to give adequate information about the conditions in which behaviour is expected to manifest itself. Gagné's eight types of learning are as follows: (i) signal learning—the individual learns to give a diffuse and emotional response to a signal which has been linked to an earlier stimulus; (ii) stimulus-response learning—comprises the learning of motor responses or behaviours (including language), it refers only to the learning of a single, isolated response to a specific stimulus; (iii) chaining—the individual learns to connect up two or more stimulus/motor-response links in an ordered sequence; (iv) verbal association (verbal sequences)—learning consists of

connecting up two or more previously learned stimulus-response links in an ordered sequence; (v) multiple discrimination—the individual learns to give various responses to a single class; (vi) concept learning—the individual learns to respond to a group of objects or stimuli which he classifies in terms of certain common attributes; (vii) principle learning—the subject learns to associate previously learned concepts and apply them to new situations; (viii) problem solving—in this, the individual not only learns to solve the specific problem with which he is faced, but also acquires a 'strategy' or method for solving problems which he applies to similar situations in the future.

The third stage is the aptitude for learning. The structural analysis of a unit of instruction into its behavioural and content elements establishes a 'model sequence' which it is hoped that the pupil will cover. Aptitude for learning depends on the learning already accomplished. The fourth stage, formulation of operational objectives, should take place during the process of selecting and grading the objectives. However it was thought necessary to establish a separate stage systematically describing the technique or method of 'drafting' or formulating specific objectives.

Degrees of specificity of educational objectives. There are several degrees of specificity of educational objectives, depending on a variety of factors: if learning is left to the interaction between the pupil and certain materials of study, it is advisable to give the objectives a high degree of specificity; when the work of teachers and pupils is to be programmed in detail, the objectives must be specified; for an accurate and objective evaluation of pupil performance, it is essential to specify the objectives in detail; the more specific the objectives the more exactly it will be possible to communicate them; if it is claimed that learning a task is the result of learning a sequence of objectives arranged in hierarchial order, it will be necessary to specify each of the objectives in detail.

Reasons justifying the formulation of specific objectives. Educational objectives are usually formulated in broad, vague terms. They must be specifically defined at classroom level to allow: planning of instruction; evaluation; communicability; identification of learning conditions; determination of results; and marking.

Abstract prepared by Professor Irma Salas, Santiago.

Classification (for the use of receiver)	Country Chile	CEAS No. 112
	No. 5	Date of issue March 1972

Author	Consejo de rectores de universidades chilenas
Title	*Antecedentes para la política de admisión a la enseñanza superior en 1972*
Bibliographical data	Santiago, julio de 1971. 26 p. + tables (mimeograhped)
Translation	Basic information for a policy of admission to higher education in 1972
Keywords	Chile educational policies access to education higher education admission open university

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Between 1964 and 1971, enrolment in Chile's higher education system increased by a factor of 2.6, the number of students rising from 36,841 in 1964 to 96,200 in 1971; this was equivalent to an average annual increase over the period of almost 15%, or more than six times the country's population growth rate. The most convincing forecast for 1972 suggests an increase in total enrolment of 46%, with 26,500 new places as against only 18,000 in 1971.

The quantitative increase was accompanied by important qualitative changes, the most outstanding of these being the radical transformation of the traditional concept of the university prevailing in Chile until after the Second World War. The universities, rooted in the Napoleonic tradition, were the summit of a selective system in which pupils were subjected to a vigorous weeding-out process beginning in the very first year of their primary schooling. Around 1960 no more than 2% of the children who had started primary school 12 years earlier were managing to secure admission to higher education. To enter university, pupils after having satisfactorily completed their secondary level studies had to pass the baccalaureate (*bachillerato*) examinations and satisfy the admission requirements laid down by each faculty or school.

To the methods of academic selection were added two more of a socio-economic nature: the cost and duration of studies, and the geographic concentration of the education system. In 1957, 73% of the enrolment was for courses taking five years or more, which meant that the universities were for the most part accessible only to young people whose families could provide for them over that period. For a large number of candidates, the expense involved was increased by the fact that in 1957 90% of the university places available were concentrated in the cities of Santiago and Valparaíso.

Selectivity, length of studies and geographic concentration have radically changed over recent years, and one of the earliest and most important scientific events hearlding the approach of a new type of university was the opening of the regional colleges of the University of Chile in 1962. This signified a major change in the situation inasmuch as it both speeded up the decentralization of education and was the decisive factor in bringing about the consolidation in university life of the 'short course' student, whom tradition and regulation had hitherto excluded from the university category. These changes mark the collapse of the selective and cloistered universities which the country had inherited from the previous century – although it was not until 1966 that the baccalaureat examinations, geared as they were to the concept of a selective university, were replaced by the *Prueba de Aptitud Académica* (Academic Aptitude Examination).

The transformation of higher education has thus meant the abandonment of a type of university modelled on the European tradition of the 19th century, and primarily dedicated to the training of a high-level professional élite, plus a few other privileged members of the population. It has been replaced by an open university which can be attended by practically all pupils who have successfully completed their secondary education and wish to continue their studies.

In 1971, a year in which the transition to the open university appears to have been completed, the general picture of higher education may be summed up as follows: there is a total enrolment of 96,200 students, equivalent to 1% of the country's total population, a relatively high proportion by comparison with other countries, and one which means that in 1971 the universities were able to absorb all those candidates who had completed their secondary studies in the previous year and 40% of the candidates from other years; higher education offers a varied range of education in nine main areas of knowledge,

leading to 249 degrees and diplomas through a similar number of courses and specializations, most of them of a professional type; it offers instruction in 15 of the 25 provinces of Chile, which in 1971 accounted for 37% of the total enrolment—not counting Santiago and Valparaíso—an increase of 24% since 1957; short courses (four years or less of study) have increased rapidly in the last ten years, from 27% of total enrolment in 1957 to 45% in 1967. In 1969, three types of university could be distinguished: 'technical' ones, whose growth runs parallel with the expansion of short courses; 'dual-purpose' ones, only 50% of whose growth is accounted for by these courses; and 'academic' ones, whose growth prospects are mainly bound up with those of the long-duration courses (5 years and over). This classification is changing in 1971, with the 'dual-purpose' universities tending to adopt the pattern of the 'technical' ones and the relative importance of the 'academic' universities beginning to decline.

Of the many problems posed by the new type of university, four stand out by reason of their magnitude and importance: the quality of education; the success ratio; the labour market; research and teaching. The creation of 18,000 new university places in 1971 involved serious problems of teacher recruitment and a consequent falling off in the quality of instruction. Another factor prejudicial to the quality of education in the open university is the inevitable decline in the level of the students, which is aggravated because the selectivity of secondary education has decreased at the same time. Those problems will become still more serious with the further expansion planned for 1972. As long as universities were essentially selective, the low success ratio could be regarded as inherent in the system, but in open universities, with their considerable and increasing number of students interested in taking short courses of not more than three years, it would be a veritable mockery to have up to 40% of them eliminated from the system before they completed their first year, and perhaps another 30% failing to complete two full years. In the open university of today with its emphasis on short courses, the approach to the labour market problem has to be drastically changed. In the first place, because the graduates of such courses will to a large extent have to make their own way in their chosen profession and, secondly, because although formally engaged on career-oriented courses, the main part of their training will consist of 'higher education', and only very little of it will be specifically professional. It follows that higher education will have to concentrate increasingly on raising qualitative standards.

In an open university the problem of quality tends to be troublesome, and it acquires even greater priority and urgency when—as is the case with Chile—a society is moving unhesitatingly in the direction of cultural independence. Higher education must therefore concentrate its efforts on the development of postgraduate education and of the research work which forms its support.

Abstract prepared by Professor Irma Salas, Santiago.

Classification (for the use of receiver)	Country Poland	CEAS No. 113
	No. 1	Date of issue March 1972

Author	Jaroszyński, Maurycy
Title	*Prawo pracowników nauki*
Bibliographical data	Wroclaw, Wydawnictwo Polskiej Akademii Nauk. Zakład Narodowy imienia Ossolińskich 1971. 697 p.
Translation	Law on scientific workers
Keywords	Poland educational legislation higher education research institutes degrees diplomas

United Nations Educational, Scientific and Cultural Organization
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A new, revised collection of the regulations governing the legal situation of scientific workers, higher schools and scientific research institutes in Poland. The book is divided into two parts. The first part deals with the legal situation of scientific workers and discusses the following aspects: (a) what is meant by scientific workers, the institutions employing scientific workers, the different categories of scientific workers; (b) the different levels of scientific degrees, the procedures governing the award of degrees, and the reforms in this field introduced in the years 1968, 1969 and 1970; (c) the history, character, conditions and manner of awarding scientific titles; (d) the qualifications of scientific workers, including the educational requirements, scientific degrees and titles, scientific and professional probationary periods, pedagogical and educational qualifications, confirmation of qualifications in special cases, and the bodies empowered to give rulings; (e) the service conditions of scientific workers, covering the legal aspects, appointments and appointing organs, availablity, service relations, discipline, retirement insurance, endowment system, work contracts.

The second part sets out the basic laws and orders issued by the various ministries, together with full comments by the author: (i) Law of 31 March 1965 on scientific titles and degrees, together with subsequent

changes, orders, dispositions, resolutions and explanations forming part of the said law; (ii) Law of 5 November 1958 on higher education, together with subsequent changes made and acts passed; (iii) Law of 29 March 1962 on higher art schools with subsequent changes made and acts passed; (iv) Law of 31 March 1965 on higher military education; (v) Law of 17 February 1961 on scientific research institutes and the dispositions taken by the Council of Ministers on special questions; (vi) Law of 17 February 1960 on the Polish Academy of Sciences with subsequent modifications, resolutions and dispositions of the Council of Ministers and enactments of the Scientific Secretariat of the Polish Academy of Sciences.

Abstract prepared by Mr. Franciskek Januszkiewicz, Inter-school Higher Education Research Board, Warszawa.

Classification (for the use of receiver)	Country Poland	CEAS No. 114
	No. 2	Date of issue March 1972

Author	Kupisiewicz, Czeslaw ed.
Title	*Metody i przyklady programowania dydaktycznego*
Bibliographical data	Warsaw, Panstwowe Wydanictwa Naukowe, 1970. 510 p.
Translation	Methods and examples of programmed instruction
Keywords	Poland programmed instruction educational technology

United Nations Educational, Scientific and Cultural Organization
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The first part contains basic information on the subject of programmed instruction, the methods of programming teaching texts (linear, branched and mixed), the basic and special features of programmed instruction, and criteria and methods for assessment of programmes. The linear programming methods include the Skinner method, the Michigan method of successive discriminations, the mathetics system and the RULEG method. The branched programming methods include the simple branching method, and complex programming (skip branching and diagnostic branching). Mentioned in connexion with linear programming are the Sheffield method, the 'block' method, the 'programmed reading' method and the algorithm method.

The 'block' method (adjunct programming) was devised by Professor Kupisiewicz. It is based on the combination, in one set, of conventional texts and programmed texts. Programmes structured in accordance with the block system are divided into the following blocks: (a) information material; (b) material for testing assimilation of information; (c) problems; (d) test problems; (e) information for correction purposes. The basic element of this programme is the so-called problem block, which requires of pupils great intellectual concentration, for performing such exercises as solving problems with incomplete data, setting down or verifying hypotheses, planning experiments, and so on. This work, includes various exercises, such as, making deductions, doing

demonstrations, giving explanations and carrying out verifications, thus constantly adding to the pupils' knowledge. Thus the block method is based on the use of texts so programmed as to train and develop to the maximum pupils' ability to think for themselves. To do this, an attempt must be made to replace the classical teaching programmes by more flexible, comprehensive ones, taking account of all the many factors involved in the process of learning; programmes, that is to say, designed to enable pupils to perform various intellectual exercises and make practical use of the knowledge thus acquired for the solution of specific problems. Special attention is given to the basis of the block method and a sample programme entitled 'What teaching is' is provided.

Programmed texts should not be used on a wide scale until an honest and straightforward assessment of their efficacy has been made; the author gives a large number of practical indications on how to programme and verify such texts.

A number of conclusions can be drawn from the research done so far on the subject. Programmed instruction is not to be regarded as a method which can be universally applied to replace classical teaching methods for all sections of education. It is, nevertheless, a valuable auxiliary method, one of the many hitherto applied, and is specially useful for: giving pupils passive knowledge (transmitting new information); consolidating passive knowledge; controlling and assessing pupils' assimilation of knowledge and skills. Research carried out in Poland indicates that programmed instruction can be an effective means of preventing pupils from failing to keep pace with the syllabus i.e., avoiding failures reflected by the difference in the amount of material pupils are supposed to assimilate in a given period of time, and the amount they actually assimilate. The use of programmed instruction without a teacher does not ensure good results. It only constitutes a valuable 'instrument' in the hands of a well-trained teacher, with a knowledge of how to make use of it in appropriate situations. There is no justification for the maximum assumption that it will be possible to use programmed instruction for all subjects in all types of schools and at all levels. Even in those subjects which lend themselves to this method (mathematics, physics, grammar) it has not justified the hopes placed in it. At the same time, it is a fact that a well-designed programme text produces results no worse than those obtained with conventional teaching methods and it is possible to cover certain ground more quickly. Finally, the theoretical bases of programmed instruction need revising.

In the second part a number of collaborators have concentrated first on examples of texts programmed by different methods and secondly on two additional subjects: (a) a detailed account of the method of programming and then verifying texts, and (b) selected texts on biology, geography, physics and mathematics for primary and secondary schools, i.e. subjects which cause pupils special difficulty, and, therefore, can be used in practical teaching.

The Skinner-Holland method was used for working out a geography programme entitled 'The world as a planet'; the RULEG method, for producing an algebra programme called 'Sets' and one for chemistry called 'Carbohydrates'. Another algebra programme entitled 'Exponential equations' was produced by the Crowder method. The largest number of programmes were produced by the 'block' method, e.g.: for trigonometry, 'Trigonometrical functions of the acute angle'; for physics, 'The field of gravity'; and for biology, 'The work and laws of Mendel'.

The methods described—in particular those for the matrix (source) analysis of conventional texts—are likely to be useful for carrying out very general teaching tasks, such as, for example, selecting basic material and presenting it by means of appropriate examples, and examining and analysing school textbooks.

Abstract prepared by Mr. Francisezek Januskiewicz, Inter-School Higher Education Research Board, Warsaw.

Classification (for the use of receiver)	Country Argentina	CEAS No. 115
	No. 3	Date of issue March 1972

Author	Ministerio de cultura y educación. Centro nacional de documentación e información educativa
Title	*Leyes universitarias*
Bibliographical data	Buenos Aires, 1970. 134 p. (Legislación educativa argentina)
Translation	University laws
Keywords	Argentine laws higher education private education universities organization provincial powers professors

United Nations Educational, Scientific and Cultural Organization
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The Argentine National Government promulgated a new enactment governing the university life of the country. Until then the instruments in force were: Decree-Law 6403/55, by virtue of which higher educational establishments laid down their own statutes, and Law 14557 on private universities. Those provisions were annulled in June 1966 and were replaced by three new laws.

Law 17.245 of 21 April 1967 concerning national universities. This law grants autonomy and academic self-sufficiency to higher educational establishments but warns that 'these shall never be considered as obstructing the exercise of the responsibilities and duties incumbent on other national or local authorities in regard to the maintenance of public order and the force of general legislation within the university'. It also prohibits, in university precints, any activity in the form of militancy,agitation, propaganda, proselytism or political indoctrination.

Each university is authorized to adopt its own system of faculties or departments. Four categories of professor are established: full, associate, deputy and consulting. The first are those who administer the department and are responsible for laying down the general lines of teaching. All of them shall be appointed by means of competitive examinations and for a period of seven years. Four modes of service shall be open to

them: exclusive of all other appointments, full-time, part-time and visiting.

The following governing bodies were established: the Assembly, the Rector, the Higher Council, the Deans and the Academic Boards of the faculties. The Higher Council consists of the Rector and Deans; and the Academic Boards of the Dean and elected representatives of the full, associate and deputy professors.

A very important innovation in Argentine university policy is the creation of the Council of Rectors of national universities; its functions include programming the comprehensive planning of official university instruction, in line with the general planning of the Argentine education system

Instruction will be entirely free of charge and the students will elect—in accordance with the particular regulations obtaining in the statute of each university—a student delegate from among those who have satisfactorily completed the equivalent of two-thirds of their course of studies.

Law 17.604 of 11 December 1967 concerning private universities. This law authorizes the establishment and operation of private university establishments, but subject to prior obtainment of recognition by means of a special decree of the Executive Authority. Universities thus recognized will be able to confer duly accepted academic qualifications which will be valid for professional purposes on completion of the requirements laid down in the relevant provisions, which are set out in Decree 8472/69. The degree also stipulates that private establishments whose foundation has not been authorized in accordance with the law may not use appellations or confer diplomas, qualifications or degrees which in view of the Executive Power should be restricted to institutions, activities, capacities or professions of a university character. The National Directorate of Higher Studies, in the Ministry of Culture and Education, is the body responsible for all matters relating to private universities.

Law 17.778 12 June 1968 concerning provincial universities. Before 1968, there was no provision for provincial universities, either in the National Constitution or in the legislation. In practice, however, there were no such establishments and those which began as provisional universities, La Plata and Tucumán, were nationalized shortly after their foundation.

It is stated that the qualifications or degrees awarded by provincial universities or institutions providing university-level education will be valid as provided for in Law 17.245 (see above), where the establishments making such awards have obtained prior authorization, which will be granted by the National Executive Authority once the legal stipulations have been met.

The provincial universities are allowed academic autonomy and financial and administrative self-sufficiency, can lay down and reform their academic statutes, and draw up their curricula, which must be approved, in general outline, by the National Executive Authority.

Within the over-all legal enactment on educational policy considerable importance is attached to the stipulation that the subjects or work approved in the provincial establishments shall enjoy identical validity for the appropriate purposes in all the country's universities, apart from the right to set additional examinations on subjects not covered by the qualifying examination. Without prejudice to that right, and for the purpose of awarding qualifications and degrees, each establishment shall determine the minimum number of qualifying subjects of courses.

Abstract prepared by Professor Luis J. Zanotti, University of Buenos Aires.

Classification (for the use of receiver)	Country Argentina	CEAS No. 116
	No. 4	Date of issue March 1972

Author	Ministerio de cultura y educación. Centro nacional de documentación e información educativa
Title	*Bases para el curriculum de los escuelas de nivel elemental*
Bibliographical data	Buenos Aires, 1971. 384 p.
Translation	Basic principles for the primary school
Keywords	Argentine curriculum educational goals teacher's guide educational reform educational organization primary education quality of education syllabus

United Nations Educational, Scientific and Cultural Organization
International Bureau of Education
Palais Wilson, Geneva, Switzerland
Co-operative Educational Abstracting Service (CEAS)

The principal structural changes in Argentine education proposed during the period running, roughly, from 1968 to 1971 included a number of modifications in the traditional system of educational stages or 'cycles' and plans for extending compulsory schooling to cover a nine-year period. The idea was that this period should be divided into two cycles: one of five years (primary school); and another of five years (intermediate school), during which an element of specialization would be introduced. The secondary school course, in turn, would cover three years and would be both polytechnical (offering vocational training in a variety of fields) and multipurpose or 'polyvalent' (i.e. leading to a certificate entitling its holder to enter any university). Important changes were also introduced into primary school organization and teaching methods, one of the most fundamental being the adoption of the 'curriculum theory' for the planning of school activities and the arrangement of syllabus contents. In addition to various other temporary provisions, the 'Basic Principles for the Primary School Curriculum' (covering the first, second and third years) were adopted upon an experimental basis under a Ministerial Resolution of 2 October 1970. Although subsequent changes in Argentine educational policy, while not causing the general process of transformation to be formally annulled, nevetherless brought it to a temporary halt, the 'Basic Principles'—of which a brief account is given below—are now firmly established

as part of the country's education system. They are an attempt to replace the old-fashioned 'programmes'—which, although sometimes of considerable academic merit, were almost exclusively intellectualist in character—by the curriculum-type scheme characteristic of a more up-to-date methodological approach.

The word 'curriculum' is defined as '... the sum total of activities and studies which the pupil carries out under the responsibility of the school'. Its components include: plans and programmes; activities; evaluation techniques and techniques of psychological and sociological diagnosis; teaching material and school equipment; environment and teacher-pupil relations; the time-table; vocational and occupational guidance; relations with the community.

However, the fundamental idea of the educational philosophy underlying the curriculum theory adopted is that these 'basic' principles (hence their name) should be regarded as guides on the basis which each educational establishment, through the concerted efforts of its entire teaching staff, can work out the specific course of action to be followed during the year. Parents, members of the community and the pupils themselves are also invited to take part in this planning of the year's activities.

After defining what is meant by objectives, (either in relation to the cycle as a whole or to individual units) and by content (everything absorbed by the pupil through the learning process, factual knowledge, ideals, attitudes, abilities and skills) a description is given of three fundamental aspects of the curriculum: (a) individualization, i.e. promoting the development of each pupil in accordance with his or her individual traits and characteristics; (b) socialization, i.e. integrating the above principle with the internationalization of group standards; and (c) regionalization, i.e. creating a national consciousness of the local conditions obtaining in each region of the country,

Essential to a proper understanding of the 'Basic principles' are the so-called 'integrational aspects' of the curriculum. There are four aspects: the guidance, the interrelational, the qualitative, and the organizational.

The guidance aspect defines the objectives, dividing them for the purpose into those relating to the educational system and those relating to the learning process. At the primary level

each of the objectives relate to the following aspects: psychological characterization of primary-school pupils; values; instrumentalization; socialization; knowledge, including the social sciences, the natural sciences, and health; physical activities; expression; and articulation with the intermediate level.

The interrelational aspect defines the school as a social system in which the following interactions take place: pupil-teacher, pupil-pupil, teacher-teacher, school-community, teaching staff-administration. Attention is drawn to the differences between an approach based on these interactions and one based on traditional criteria. It is pointed out, for example, that, under the most advanced systems, the pupil is regarded as the 'chief protagonist of the process'; that leadership depends on circumstances and can be assumed either by the teacher or by the pupils in turn; that the atmosphere is democratic; that pupils learn how to solve problems through action and the use of scientific methods; and that the teacher combines the rôles of guide, motivator and supervisor in the learning process.

The qualitative aspect defines the quality of teaching and stresses the importance of a correct approach to the dynamics of school work—the curriculum theory demands a constant daily-renewed effort, on the part both of the teacher and of the school community as a whole, if a continually developing work programme is to be established, avoiding repetition and reliance on preconceived, dogmatic patterns or ideas. This is followed by a systematic discussion of individualized work, discipline and methods of evaluation and promotion. It should be mentioned that one of the most significant changes resulting from the 'Basic Principles' is the rule of automatic promotion within each cycle.

The organizational aspect concerns the problem of ensuring that the various elements of the school duly co-operate in serving its general interests—or in other words, that the arrangement of the parts is related to the whole. Broad guidance is given on the question of planning including the principles of planning at achool level, planning needs and methods, annual programming of school tasks, and the compilation of the school time-table.

A description, in ideal terms, is given of the 'structure of the school' and defines the goals which Argentine educational policy has set itself with a view to ensuring that every educational establishment shall be run on the most modern lines.

The functions of school administration are: programming, organization, leadership, co-ordination and supervision. Some essential school services are as follows: educational museum; school archives and collections; workshop; science laboratory; language laboratory; library and audiovisual aids. There is also a list of auxiliary services (psychoeducational guidance, medical and dental clinics) and of social services (school dining-room, sports ground, school club, school co-operative, mothers' club and ex-pupils' association).

The question of content is dealt with in considerable length and schematic outlines are given for each of the following subjects: mathematics, languages, social sciences, natural sciences music, plastic arts, physical education, and free activities. The schematic outlines are all constructed on the following pattern: specific objectives of the first cycle; general objectives common to all syllabi; contents and patterns of activity; guidance for the teacher; basic information; methodological approach; attitude toward the pupil; principles of evaluation. Each outline concludes with a basic or minimum bibliography for the use for the use of the teacher.

Guidelines for curriculum improvement (i.e. evaluation of the primary school curriculum; basic principles and checklist for curriculum evaluation), a glossary of technical terms used in the text, and a general bibliography (listing some one hundred titles) are provided to help teachers to implement the 'Basic Principles' and to understand the new criterion underlying the educational policy.

Abstract prepared by Professor Luis J. Zanotti, University of Buenos Aires.

Classification (for the use of receiver)	Country Pakistan No. 1	CEAS No. 117 Date of issue March 1972

Author	Pakistan. Ministry of Education and Scientific Research
Title	*Education in Pakistan, before and after the New Education Policy (1970)*
Bibliographical data	Islamabad, 1971. 26 p.
Translation	
Keywords	Pakistan educational goals educational reform educational planning enrolment projections curriculum development teacher education

United Nations Educational, Scientific and Cultural Organization
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The basic concepts inspiring the goals and guidelines of educational developments outlined in the New Education Policy embrace five major areas of concern: the role of education in the preservation and inculcation of Islamic values as an instrument of national unity and progress; reorientation of educational programmes in the light of the economic needs of the society particularly by shifting emphasis to scientific, technical and vocational education; role of education as an instrument of social change and development and as a factor in the creation of a democratic social order by ensuring equal access to opportunities for education; the paramount importance of quality in education and the crucial role of teachers in the improvement of educational quality; and decentralization of educational administration to ensure academic freedom and administrative and financial autonomy required for healthy and efficient growth of educational institutions particularly at the higher stage.

The New Policy has laid particular emphasis on the rapid expansion of facilities for elementary education; diversification of courses at the secondary education level by providing facilities for instruction in industrial subjects, agriculture, commerce, home economics, etc.; diversion of students from the study of arts to that of science, technology, engineering and agriculture etc. at the higher education level; a sizeable programme

of adult education with a view to extending functional literacy in the country; consolidation and improvement of existing facilities at higher education level with a view to improving the quality of education; putting the existing facilities to extensive use by introducing staggered or double shifts; decentralization of administration of educational institutions; and participation of teachers in the administrative and advisory bodies of the institutions.

The means proposed for reaching the objectives are: equalization of opportunity and expansion of school facilities (massive expansion of the basic level of grades I-VIII, moderate expansion of secondary level in grades IX-X, and controlled expansion of higher education); qualitative emphasis by improving the working conditions of teachers; by emphasizing scientific and technical subjects; by reorganizing the technical services related to curriculum changes and educational planning; and by introducing non-formal vocational courses for grade VIII leavers not entering secondary education; and administrative reorganization and reform, through decentralization and encouragement of greater participation in educational activities by teachers, pupils and influential outside groups.

Between 1970-75, the Fourth Plan, which attempts to implement the New Education Policy, envisages the creation of 5.1 million additional places at the primary, 1 million at the middle school, 0.435 million at the high school, 0.13 million at the intermediate, 46,000 at the degree, 7,500 at the post-graduate and 0.128 million at teacher education levels in addition to 0.15 million places for in-service training of teachers in the formal system. Futhermore, 5 million additional places have been envisaged for adult education.

The new programme for universal primary education now makes adequate provision to cover not only the increase in population, but also the backlog of primary age children not in school. A similar major programme has been launched for the education of the adults with a projected attainment of universal literacy before the end of the century. The shift of emphasis from arts and humanities to science and vocational/technical education has been designed for a gradual attainment of a ratio 40:60 in enrolment at the secondary school level between the general stream and the science, vocational and technical streams. The new programme will include the establishment of comprehensive schools with residental facilities. In addition science colleges will be established, which will be manned by a select faculty and adequate facilities

and will, at the tertiary level, perform the functions of pace setters and achievers of excellence.

Since the first efforts at curriculum development in 1960, curriculum improvement has become a major concern. In addition to central curriculum committees, organizations have been established in the provinces to formulate, develop and improve curricula on a regular and rational basis. A National Bureau of Curricula and Syllabi has already been established, and a Bureau of Curriculum Development in each province is to be set up to provide continuous evaluation and coordination of curriculum development activities. During 1968-70 special emphasis has been laid on revision of curricula for teacher education programmes, and a new curriculum for the Primary Teachers' Certificate has already been produced.

A large-scale training programme, both in- and pre-service, for teachers was planned to start in 1972. With a view to ensure their adequate preparation, it has been proposed that teachers for classes I-V should possess at least a secondary certificate, teachers for classes VI-VIII, an intermediate certificate, and teachers for classes IX-X a bachelors degree, followed by a professional training for one or two years. Facilities and service conditions for teacher training institutions are also to be improved.

Centres of excellence will be established in various universities so that they will provide growth points in education and research in various disciplines. Educational research itself will be provided with increased emphasis, when a new organizational framework will be created and finances provided specially for research activities in education.

At the national level a standing advisory body called the National Council for Education has been established, consisting of educationists representing various levels and types of education and eminent citizens. The Council will advise on guidelines for the national educational policy, and assist in evaluating education progress, in initiating and supporting research in education, and in harnessing and mobilizing the latest educational techniques and resources for the improvement of education.

The Appendices carry summarized statistical data up to 1969/70 on the number of educational institutions by type and level of education; enrolment by type and level of education; number of teachers in primary, middle and high schools by training and

sex; teachers in colleges and universities; government expenditure on education by level and by developmental (non-recurring) and non-developmental (recurring) expenditure. A diagram of the education structure of Pakistan including identified terminal examinations is also attached.

Abstract prepared by the Regional Office for Education in Asia, Bangkok.

Classification (for the use of receiver)	Country Malaysia	CEAS No. 118
	No. 1	Date of issue March 1972

Author	Government of Malaysia
Title	*Second Malaysia Plan 1971-1975*
Bibliographical data	Kuala Lumpur, Government Printer, 1971. 267 p., tables map
Translation	
Keywords	Malaysia national development educational development educational planning educational goals educational expenditures

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The Second Malaysia Plan is divided into two parts: Part I deals with objectives and strategy and Part II with sectoral development programmes. The new development strategy is based on the new economic policy, which has as its main goals the eradication of poverty and the correction of economic imbalances in order to reduce the identification of race with economic function. This abstract is concerned largely with the educational objectives.

Growth of GNP during the First Malaysia Plan 1966-70 was 6.1% per year, exceeding the target by 1.2%. Meanwhile, total expenditure showed a shortfall of 7% of the Plan target. For various types of education and training, this shortfall was as high as 30% of planned expenditure, particularly in vocational and technical education, due mainly to a shortage of training staff and delay in obtaining foreign finance.

Second Plan targets are an annual GNP growth of 6.5%; increase of foreign exchange earnings of 4.6% per year; total development expenditure of M$ 14,350 million, of which M$ 7,250 million is expected from the public sector. Of this amount, M$ 4,307 million will be public investment expenditure. Of the public development expenditure 15% will be devoted to defence and security, 26.5% to agriculture and rural development, 8% to commerce and industry, 16.4% to transport, and

7.4% to education and training.

The main objectives of the Second Plan are the creation of at least 600,000 new jobs, increasing the availability of skilled workers, improving productivity of labour and supporting the entry of Malays in remunerative modern sector employment. The main manpower shortages are in educated agricultural manpower, engineering and technical personnel, graduate teachers and skilled blue-collar workers. Most of these will remain in short supply during the Plan, but training programmes are being introduced. There is also a shortage of technical and administrative manpower for planning and implementation of the development programmes.

During the First Plan actual expenditure for education and training was only 70% of the planned expenditure. Nevertheless a considerable rise in enrolments took place, mainly by more intensive use of existing facilities. In 1970, 90% of the primary school-age population was enrolled. Basic changes were the reorganization of secondary education into comprehensive and post-comprehensive education and a shift to a better balance between general academic education and vocational and technical education.

Education objectives of the Second Plan are the consolidation of the education system to promote national unity, the orientation of education programmes toward manpower needs, and the improvement of the quality of education. Programmes to achieve these objectives include the use of Bahasa Malaysia as the medium of instruction; the creation of equal educational opportunities among regions and races; the integration of the East-Malaysian education system into the national system; the reduction of wastage ratios; the evaluation and improvement of curricula and teaching methods; and the establishment of a better balance between general, and vocational and technical education. Of the total Plan outlay for education of M$ 537.26 million 85% will be spent in West-Malaysia, 7% in Sabah and 8% in Sarawak.

The programmes of the Ministry of Education will provide every child with nine years of schooling, and considerable expansion of secondary school enrolment is projected. Enrolment in upper-secondary technical and vocational education will more than double. Ten pilot residential secondary science schools will be established, each with an enrolment of 1,200 students, predominantly from rural areas, with residential facilities for 70% of the students. In these schools, the emphasis in teaching

will be on mathematics, science and technical subjects. Enrolment at the college level will double as well, and the university enrolment will increase by 60% over the five years. Teacher training will concentrate on upgrading of quality of teachers and on output of science and mathematics teachers,

A Science Education Centre will be established in Kuala Lumpur. Its task will be the improvement of teaching of science and mathematics. It will deal with the preparation of materials for practical laboratory work and for use in the teaching of science. A Special Services Unit of this Centre will be responsible for development and modification of curricula and of methods of teaching of science and mathematics. The Centre will co-operate with the Regional Centre for Science and Mathematics (RECSAM) in Penang.

Research will be undertaken on the efficiency of the education system, and on the relation between the skills learned at school and those required by commerce and industry. The Educational Television Service (ETV) will provide programmes for primary and secondary schools. It will reach 86,000 primary school pupils and 418,000 secondary school pupils. The MARA Institute of Technology (I.T.M.), which provides higher educational facilities for rural Malays will be substantially expanded during the Plan and reach an enrolment of 4,500 students in 1975. Extensive training courses for industrial skills will be given.

The National Youth Pioneer Corps gives training to youths, who have too low educational standards to enter formal training programmes. During the Plan period this Corps will concentrate on improvement of the quality of its training and on the placement of its trainees in productive employment.

The Medical and Health programmes under the Second Plan will concentrate on rural health, training of medical and health personnel and extension of the preventive health service. The general health of the population will be improved by the enhancement of environmental sanitation and of nutritional standards. The programme for Family Planning aims at reducing the birth rate and in particular at extending the services to rural areas. A large public housing programme for poor people in urban areas will be started. Urban facilities will be improved by extension of sewerage systems and drainage projects.

Abstract prepared by the Regional Office for Education in Asia, Bangkok.

Classification (for the use of receiver)	Country Thailand	CEAS No. 119
	No. 2	Date of issue March 1972

Author	Thailand. Ministry of Education
Title	*The Third Five Year Plan of the Ministry of Education 1972-1976*
Bibliographical data	Bangkok, 1971. 15 p. mimeo.
Translation	
Keywords	Thailand educational objectives educational planning enrolment projections

During the Second Five Year Plan the emphasis was on expansion of enrolments in secondary, technical, and teacher training schools to provide the manpower required for development. Under the Third Five Year Plan emphasis will be given to expansion of upper elementary education, to adult education in backward regions and to establishing secondary schools in rural areas and, much more than in the past, to improving the quality, efficiency and relevance of the education system at all levels. Objectives of the Third Plan are: (i) to develop the education system so that it can play maximum possible role in the economic development of the country; (ii) to expand lower elementary education to keep pace with the population growth and higher elementary education to achieve universal elementary education by the late 1980s; (iii) to expand secondary and higher education, particularly in fields of medicine, technology and teacher training to meet manpower requirements; (iv) to increase the efficiency of education; (v) to improve and diversify the curricula at all levels of education, particularly in rural areas; (vi) to improve the qualifications of the teaching force; (vii) to expand education for rural development in order to lessen the income disparities between urban and rural areas; and (viii) to expand non-formal education in accordance with the concept of life-long education.

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The quantitative targets for 1976 are a total enrolment of 8,868,450 students (33% increase in relation to 1971), of which 5,703,380 in lower elementary education (19% increase), 1,555,646 in upper elementary (67%), 788,200 in lower secondary (67%), 111,900 in upper secondary (72%) and 63,750 for universities (41%). There will also be considerable increase in the enrolments in colleges of education (93%), in technical education (88%) and in adult education (185%).

At all levels the enrolment ratios will increase. At lower elementary level special attention will be given to reducing repeater and drop-out ratio, e.g. for lower elementary education the repeater ratio for grade 1 will decline from 23.0 in 1971 to 15.0 in 1976, and the drop-out rate from 5.0 to 4.0 over the same period.

The enrolments at higher levels of education have been planned to meet the manpower demand. At lower levels of education they are planned in accordance with the social demand of the population.

In the Third Five Year Plan for education there are 84 separate programmes, half of them related to the expansion of enrolments and the other half to increasing the quality and efficiency of education. The major proportion of the budget would be needed for the first half of the programmes.

Abstract prepared by the Regional Office for Education in Asia, Bangkok.

Classification (for the use of receiver)	Country France	CEAS No. 120
	No. 2	Date of issue March 1972

Author	France. Lois, statuts, etc.
Title	Lois nos 17-575/6/7 du 16.7.1971: Organisation de la formation professionnelle continue dans le cadre de l'éducation permanente - Loi relative à l'apprentissage - Loi d'orientation sur l'enseignement technologique
Bibliographical data	*Bulletin officiel de l'éducation nationale* (Paris) no 31, 26.8.1971, p. 1963-1993.
Translation	Organization of continuous technical training within the framework of permanent education - Law relating to apprenticeship - Law on the orientation of technological education (Laws Nos.17-575/6/7 of 16.7.1971)
Keywords	France educational legislation further education vocational training apprenticeship technical education

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This body of laws, passed on 16 July 1971, is intended to establish a continuous educative process which enables the individual, at any stage in his career, to acquire new skills or complete his training.

Basic training

Technical education. This 'technological and vocational training' is intended to provide both vocational qualifications and a general education. It extends from the fourth class to higher education and is planned to make further progress possible.

All secondary pupils are given an introduction to technology and economics. The instruction in technology prescribed for the third and fourth classes should be given to all pupils in these classes and be extended progressively to pupils at other levels.

To raise the status of technical education, emphasis is placed on the equal value of the different disciplines, the equivalence between diplomas in technology and in general education, and the identical or equivalent, standards in the recruitment and training of teachers.

Apprenticeship. The law on apprenticeship envisages the following measures.

(i) The unification and reorganization of the apprenticeship system, which at present embraces one-third of the skilled labour force. The transformation initiated by vocational courses at apprentice

training centres should be extended and made general. At these centres, the apprentice attends a maximum of 360 hours of classes per year, during which he receives theoretical training in the technology of his trade, plus complementary practical training and a basic general education. The period of apprenticeship varies from one to three years.

(ii) The creation of an apprentices' statute. Before engaging an apprentice the employer must enter him at a centre and make sure that he completes all the courses and other exercises prescribed by that centre. The apprentice is bound to sit for a technical education diploma corresponding to the training specified in his contract.

The competence of the apprentice master is verified by a departmental council. The parallel progress of practical and theoretical instruction is guaranteed by agreement between the employer and the instructor who acts as educational counsellor. Steps will be taken to organize an apprenticeship inspectorate.

Complementary training

Basic and further training are organized in a coherent fashion to facilitate access to a higher level of studies.

Diplomas acquired in the course of normal schooling and those obtained through permanent education are of equal value. A 'tuition credit' is introduced, this being a certificate which gives holders of technological and vocational diplomas an opportunity to resume their studies.

On the other hand, a whole body of measures is foreseen to bring technical education more fully into line with economic realities: compulsory practical courses for pupils, courses for instructors in a full working environment, participation in the development of syllabus and training by the various commissions and vocational committees and by technical education counsellors recruited from the trades themselves.

To allow this new system to be implemented from 1972, five decrees covering financial implications were published in the Journal Officiel *on 11 December 1971. The chief provisions applied to the financing of training by private concerns and to the right of paid workers to time off for training, and to pay during their training, which might henceforth take place during working hours.*

Abstract prepared by the Institut national de recherche et de documentation pédagogiques, Paris.

Classification (for the use of receiver)	Country France	CEAS No. 121
	No. 3	Date of issue March 1972

Author	Syndicat national des éditeurs, Paris
Title	*Les livres d'enseignement : dossier presse*
Bibliographical data	Paris, 1971. Documents divers
Translation	Educational books : press documents
Keywords	France reading educational books children's books

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Every year, the National Union of Publishers (Syndicat national de l'édition) introduces new school books and children's books to the press. The press conference in question took place on 3 November 1971.

Summarizing the history of school books, representatives of the publishers' union pointed out that, before 1950, the school book had been intended for a homogeneous and static public and had scarcely changed either in form or in content. Since 1950, however, the population explosion, the growth of the mass media and the introduction of new printing techniques have led to the publication of a new school books by sixty separate publishing houses, a list of which is contained in the dossier.

A few statistics for the year 1969 are given :

- the turnover in educational books reached 300 million francs, or 16.25% of the total figure for French publishing;
- educational books represented 18% of the total output; 63,550,000 copies were produced, 15,152,000 of them new works and 48,399,000 reprints;
- 18.2% of the total production was exported;
- the over-all turnover in school books represented 0.83% of the Ministry of Education's total budget and amounted to 26 milliard francs.

As regards childrens' books, the Union pointed out that reading seems to make its prime appeal around the age of 12. Later, the taste for reading seems to fade, almost to vanishing point in the case of the French adult, possibly because his interest has not been roused at the decisive moments, in childhood and adolescence. Here it is not the reader who is the customer, but parents who buy books for their children, and it is not certain that the latter would themselves choose the books which are given to them.

Nonetheless, the fact remains that books for children and young people are today both plentiful and very well produced.

Abstract prepared by the Institut national de recherche et de documentation pédagogiques, Paris.

Classification (for the use of receiver)	Country France	CEAS No. 122
	No. 4	Date of issue March 1972

Author	France. Lois, statuts, etc.
Title	Circulaire no 71-168 du 6.5.1971 : Organisation des classes de mer et des classes vertes Circulaire no 71.302 du 29.9.1971 : Pédagogie des classes de mer et des classes vertes.Centres permanents
Bibliographical data	*Bulletin officiel de l'éducation nationale* (Paris) no 19, 13.5.71. p. 1217-19; no 37, 7.10.71, p. 2365-66.
Translation	Organization of classes by the sea and in the country (Circular No. 71-168); Education in classes by the sea and in the country : permanent centres (Circular No. 71-302)
Keywords	France educational renewal open-air schooling study of the environment teaching facilities

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The circular of 6 May 1971 officially recognizes the classes de mer *and* classes vertes *system (by which entire classes of schoolchildren are transferred for short periods to the seaside or country and continue their normal schooling, supplemented by appropriate additional activities, in the new setting). Since these have in fact become common in several* départments *in the last few years, it was thought necessary to lay down some flexible guidelines on organizing and running them. The circular of 29 September 1971 expounds the theory behind them and fixes a double purpose for them.*

Originally, advocates of these 'open-air' classes emphasized the healthy character of life in the open, of physical exercise and sport, even if the wish for effective schooling meant that the basic academic disciplines still played an important part. Reflecting modern man's concern for his environment, the sense of renewal within education and the wish for a fuller realization of each child's potential, this new circular introduces the concept of the environment as the setting of all man's activities, whether his intellect, his awareness or his physique is involved.

This new unified concept should be extended to the school year as a whole. To prevent children thinking of their stay by the sea or in the country as an isolated episode, care should be taken to prepare for it

beforehand and to make full use of it afterwards. It seems likely that children, whose environmental awareness has once been deepened by a stay in a strange place, will study their own normal surroundings with increased curiosity and objectivity.

The circular of 29 September 1971 defines the function of the 'permanent centre', details the role of its organizer and gives guidance on methods. This means that teachers accompanying schoolchildren to the sea or the country will be able to help them get more from their stay.

At the beginning of the school year in 1971, fourteen permanent seaside centres had already been set up in the educational districts of Rennes and Nantes. As more are added in the years ahead, it will become possible to accommodate more children on more frequent visits.

Abstract prepared by the L'Institut national de recherche et de documentation pédagogiques, Paris.